CSWG/NIST Smart Grid Privacy Subgroup
June 22, 2012

Attendance

- Rebecca Herold – Lead – The Privacy Professor
- Marianne Swanson – NIST
- Amanda Stallings – PUCO
- Lee Aber – OPOWER
- Paul Zumo – APPA
- Anan Sokker - FPL
- John Hudson – Centerpoint Energy
- Ward Pyles – Southern Co
- Chris V – CPUC
- Tony Munoz – Col PUC
- Ken Wacks – GWAC
- Christine Hertzog – SG Library
- Tim Schoechle – University of Colorado, Boulder
- Sarah Cortez – Inman Technology
- Leonard Tillman – Balch & Bingham LLP

Please note the following change to previous minutes:

Version 2.0 of the new SGIP Business Plan can be downloaded at: https://collaborate.nist.gov/twiki-sggrid/pub/SmartGrid/BSPWGv2/SGIP_Business_Plan_V2.0.pdf

- Overview of PAP 20 request – Marianne - Received a request for SGIP Program Office to review PAP 20 – Green Button (NAESB, REQ 21/22, etc.) We need to look at the documents and devising cyber security and privacy-related requirements. We need to have that done by June 29. Request Tanya to take a look at the PAP to see where we can meld in. Ultimately, we are going to try to come up with high-level requirements for the various standards. We will not have much of a chance to vet the process to the group; they will be vetted in the PAP 20 group. Suggest that if you want to get involved, look at what goes into PAP 20 requirements on the Twiki. Review those and provide comments through the PAP 20 Twiki comment page.

  - Liaisons – Amanda Stallings, Chris Kotting, John Stitzel, Marianne Swanson, Tanya Brewer

- NISTIR 7628 Vol 2 Version 2 – Rebecca - We need to have a draft of NISTIR 7628 v2 by September. A lot of the new stuff will be included in the next version but we need to plan how the next version will be structured. New things will include: Third Party Recommendations, new

use cases, NSTIC, possibly PEV, new definitions… Also looking at adding new information related to consent and authorization. Also looking at helping consumers understand how to revoke their authorization. If there is something in particular you've been thinking about that might be included in the new version, please contact Rebecca with your ideas. Rebecca will provide a draft outline for review at our next meeting.

- UK Review – Ken Wacks – The group officially included Amanda, Chris, Ken, and Irene from FPL. We were able to meet to discuss the documents. Read the document most relevant to privacy (4933). This document is the official intent of the UK government with regards to consumer access and protection of data. We were in general agreement with a number of issues.

  - Amazed at the level of detail the UK went into.
  - Had the tone of authority similar to British Parliament; we focused more on the content
  - Data access and privacy provisions mimic some of the work done in our group – especially with REQ 22 third party recommendations and NISTIR 7628. UK stipulated that all meters shall provide once per month meter information for billing at minimum.
  - The customer in the UK may allow more frequent meter readings for energy efficiency.
  - Meter data storage – meters have capability to store a large amount of data. Customer should have choice as to how much data should be stored. Had debate on regulatory regime regarding data access. Cali is planning to issue rules delineating different tiers of third party providers.
  - Third parties that contract directly with customers were regulated. Still an open issue.
  - Another topic was that if a customer w/d's from 3rd party, any data must be destroyed unless customer gives specific permission
  - Statistical data that is aggregated or may be aggregated should not be attributable to a specific customer should be maintained to improve the health of the network.
  - Ken states that this is the first time he has seen control given to customers over the frequency of meter readings. US has a "take it or leave it" approach with meter readings. In the UK, customers have control over the frequency of readings.
  - This is important to understand – especially for vendors with multiple customers internationally.
  - John Hudson would also like to point out that we have to look at this from UK metering relationship. Meter owner could be retail provider or third party. Meter owner could be competitive and not necessarily the distribution company as is our structure in the US.
  - Retention of data has been a long-time issue in the UK in addition to other countries (i.e. Canada, Australia).
  - Ken believes that the Netherlands has the strictest rules regarding privacy. This is actually hindering the Netherlands' ability to roll out SG.
  - Group Opinions Report about the UK Document:

    1. The Team decided that the document "Smart Metering Implementation Programme Consumer engagement strategy" did not address privacy issues relevant for NIST.

2. The Team studied the document "Smart Metering Implementation Programme Data access and privacy" in detail. We will call this document "the U.K. document" in the remainder of this report.

3. The Team's collective impressions of the U.K. document:

- This document contains much more detail than we would expect from a government agency. We have extracted some basic principles that we recommend for the NIST IR.

- This document distinguishes application categories for customer data such as:

> . Billing

> . Energy management

> . Distribution network performance monitoring

> . Problem diagnosis

- This document addresses data access and privacy provisions that somewhat mimic our work in the NIST Cyber Security Privacy Group as well as the highlights found in the NAESB REQ 22 guidelines. These include verification of authorization, access issues, opt-out procedures, and fulfillment of regulated duties.

- This document addresses regulation of third party access to customer data. Some U.S. states are developing similar regulations while accommodating a more balanced view of customer, utility, and service provider needs.

- This document proposes customer control over meter data access.

The Team supports this initiative provided that de-identified (anonymized) data are available for utility uses such as distribution-grid maintenance.

The Team combined our investigation of this U.K. document with our collective expertise in utility operations, utility regulations, utility customer services, and consumer electronics to suggest for consideration:

    1. Frequency of energy consumption reads by a smart meter

   - Once a month for billing is required. Exceptions are allowed for:

- End-of-service billing when the customer moves out

- Diagnosing a service problem (with customer permission)

- Pursuing a customer who is suspected of stealing service

- The customer may allow more frequent meter reads for energy management. If the meter has data storage capability, the customer shall determine how long a history, if any, shall be retained in the meter.

2. Methods for accessing meter data reads for energy management:

- Directly from the meter via consumer electronics.

- Via the utility with customer authorization.

- Via a third party authorized by the customer.

3. Energy management data

- If the customer withdraws authorization from the utility or from a third party, any accumulated data for energy management must be destroyed unless the customer authorizes data retention for a specified amount of time.

- Statistical data that is aggregated and cannot be attributed to a specific customer (anonymized data) may be retained.

- o Documents available at:
    http://www.decc.gov.uk/en/content/cms/consultations/cons_smip/cons_smip.aspx
    - Consumer Engagement Strategy Consultation (Ref: 12D/033)
    - Consultation on Data Access and Privacy (Ref: 12D/024)

- Privacy Use Cases – Christine – Continuing to move through the comments in the round-robin session. Giving each review equal treatment to be fair. Keeping everything in the edit tracker to preserve documentation of changes made or reasons why edit was not accepted. Now the challenge is to go back and wrestle the revised use cases, especially those impacting use cases 1-8 into existing work that is finished. Thanks to everyone who provided feedback, it helped a lot.

- Training and Awareness – Rebecca - on hold until further notice following completion of the 3rd Party Privacy Recommendations paper.

- PEV Team – Amanda - on hold until further notice – planning to put language in the next version of NISTIR 7628 Vol 2. Tim S has requested to be added to the team distribution list and review documents. Advised he will be added.

- NSTIC Team –Amanda - on hold until late August

- 3rd Party Recommendations – Tanya - moving along; it is taking a bit of time. Reminder that a meeting will be held today (June 22) at 3:00 EDT to continue our review and finalize our work. Full group is welcome to participate. Encourage you all to participate because that is our only chance to provide input before the final version is released. Once the final version is out, changes will not be made.

- NAESB REQ 22 – Tanya - is the same as 3rd party recommendations regarding comments. We had a good meeting on Wednesday to review what our Gap Analysis report. We still have a few outstanding items that we need to wrap up. Hope to be finished this week.

Miscellaneous –

- Version 2.0 of the SGIP will be released on July 9 at the Portland F2F. Online version available at: https://collaborate.nist.gov/twiki-sggrid/pub/SmartGrid/BSPWGv2/SGIP_Business_Plan_V2.0.pdf

- Lillie Coney also suggested a speaker on cyber security and how it relates to privacy. Rebecca will work with Lillie to schedule, likely after we have finished some of our current work products.

- **Tim Schoechle** & Ken Wacks– Discussed international privacy issues. There is a new international standard for privacy. The document contains a great deal of background material on the topic of privacy. Tim is the secretary for JTC 1 Sub Committee that wrote the standard. Tim indicated the document (ISO 15944-8) is openly available on an ISO site. It may be used by this group for consideration in developing our work. Please read the copyright limitations at the top of the site. The standard is listed in a table at:

http://standards.iso.org/ittf/PubliclyAvailableStandards/index.html.

Rebecca will contact Tim and Ken directly to plan a time for them to discuss the new standard, how it is being used internationally, and how it may relate to the work we've done over the past three years, at an upcoming full group meeting.

Next meeting will be July 6 at 11:00am EDT.